Electronic Version
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Claims

[c1] What is claimed is:

1. An air intake silencer assembly comprising:
a base having an opening constructed to allow air passage therethrough; and
a cover having a cellular surface, the cover constructed to be attached to the base so as to enclose an air path therebetween.

[c2] 2. The assembly of claim 1 wherein the base further comprises a second opening constructed to allow air passage therethrough.

[c3] 3. The assembly of claim 1 wherein the cellular surface is integrally formed on an inner surface of the cover.

[c4] 4. The assembly of claim 1 incorporated into an outboard engine such that the opening allows air passage to a combustion chamber.

[c5] 5. The assembly of claim 1 wherein the cover and the base are bonded together.

[c6] 6. The assembly of claim 3 wherein the cellular surface comprises a plurality of equally shaped cells.

[c7] 7. The assembly of claim 3 wherein the cellular surface forms a waffle pattern.

[c8] 8. The assembly of claim 1 further comprising a pair of walls extending from the base and generally aligned with a pair of walls extending from the cover.

[c9] 9. The assembly of claim 8 wherein the pair of walls of the base and the pair of walls of the cover form a first chamber and a second chamber with an opening therebetween.

[c10] 10. The assembly of claim 1 wherein the cover is constructed with sufficient rigidity to prevent substantial noise travel therethrough.

[c11] 11. The assembly of claim 1 wherein one of the cover and base further comprises a wall extending therefrom and having an opening therein and constructed to form a resonance chamber in the air intake silencer.

[c12] 12. The assembly of claim 11 wherein the resonance chamber further comprises at least a first chamber and a second chamber and the opening allows fluid communication therebetween.

[c13] 13. An air intake silencer comprising:
a housing forming an inlet, an outlet, and a path there-

between;

the inlet constructed to allow air passage therethrough;

the outlet constructed to allow air passage to an engine; and

a grid extending along at least one surface of the housing.

[c14] 14. The air intake silencer of claim 13 further comprising a first chamber and a second chamber formed along the path so that a flow therethrough must pass through both the first and the second chambers.

[c15] 15. The air intake silencer of claim 13 further comprising a plurality of outlets constructed to allow air passage to a plurality of throttle bodies of the engine.

[c16] 16. The air intake silencer of claim 13 wherein the grid forms a plurality rectangular cells integrally formed with at least a portion of the housing.

[c17] 17. The air intake silencer of claim 13 wherein the housing further comprises a base and a cover and the grid is formed at least on the cover.

[c18] 18. The air intake silencer of claim 13 wherein the grid is on an interior surface of the housing.

[c19] 19. The air intake silencer of claim 13 wherein the outlet

further comprises an axis that is generally perpendicular to the grid.

[c20] 20. The air intake silencer of claim 13 mounted to an engine of a watercraft.

[c21] 21. An outboard motor comprising:
an engine having at least one cylinder defining a combustion chamber;
an air intake to deliver air to the engine;
an air box in fluid communication with the air intake and having a flow path therethrough; and
a ribbed surface on an inside surface of the air box.

[c22] 22. The engine of claim 21 wherein the air box further comprises a base and a cover wherein the base is constructed to attach to the air intake and the cover is constructed to attach to the base and the ribbed surface is formed on an inside of the cover.

[c23] 23. The engine of claim 21 wherein the air box further comprises at least a pair of resonator chambers positioned therein.

[c24] 24. The engine of claim 23 wherein the pair of resonator chambers are formed integrally with the air box.

[c25] 25. The engine of claim 21 wherein the ribbed surface

comprises a plurality of parallel and perpendicular ridges.

[c26] 26. The engine of claim 21 wherein an axis of the air intake is generally perpendicular to the ribbed surface.